



# ***Website Payments Pro – HTTPS Interface Developer's Guide***

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Currently only available in English.

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A usage Professional Uniquement  
Disponible en Anglais uniquement pour l'instant.

*Website Payments Pro – HTTPS Interface Developer's Guide*

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# Preface

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## This Document

This document describes the HTTPS interface, which allows you to post transactions directly to the Payflow servers. Use the HTTPS interface for all operating systems and language besides Java and .NET.

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## Documentation Problems

If you discover any errors in or have any problems with this documentation, please email us by following the instructions below. Describe the error or problem as completely as possible and give us the document title, the date of the document, and the page number or page range.

To contact Developer Technical Support about documentation problems:

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2. Click **Help Center** at the bottom of the box on the right side of the page.
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4. Complete the form.

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## Revision History

Date	Description
August 2007	First version of this document.



# 1

## About the HTTPS Interface

This chapter contains the following topics:

- [Overview](#)
- [Moving from the Payflow SDK to the HTTPS interface](#)
- [Getting sample code](#)
- [Contacting Support](#)

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### Overview

The HTTPS interface allows you to post transactions directly to the Payflow servers.

**NOTE:** If you are programming in Java or .NET, you can simplify the implementation by using an SDK. The SDKs are based upon this HTTPS interface. The .NET SDK can be used with classic ASP. For SDKs, see [https://www.paypal.com/IntegrationCenter/ic\\_downloads.html](https://www.paypal.com/IntegrationCenter/ic_downloads.html).

This guide contains the information you will need to construct the HTTPS message. The body of the transaction is in name-value pair (NVP) or XMLPay format. For details of the NVP format, see *Website Payments Pro Developer's Guide*. For details of XMLPay format, see *Website Payments Pro – XMLPay Developer's Guide*.

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### Moving from the Payflow SDK to the HTTPS interface

The Payflow Pro SDK contains APIs that do the following:

1. Create a connection with the Payflow server
2. Submit the transaction
3. Destroy the transaction

When you move to the HTTPS interface, you will have to rewrite these portions of the code. You will need to complete four steps:

1. Write code that creates an HTTPS connection with the Payflow server.
2. Write an HTTPS request to submit your transaction data.
3. Receive the HTTPS response and extract the parameters.
4. Add code for error handling, retry logic, and duplicate transaction handling.

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## Getting sample code

For sample code, visit the [Payflow Gateway forum](#) in the PayPal Developer Community.

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## Contacting Support

For support, post your question or issue on the [Payflow Gateway forum](#) or go to <https://www.paypal.com/mts>, select **Contact Support**, and create a ticket.



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## Reference

This chapter contains the following topics:

- [URLs for sending messages](#)
- [Standard HTTPS headers](#)
- [Transaction message](#)
- [Common problems](#)

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### URLs for sending messages

Use the following URLs for sending transactions to PayPal's Payflow servers:

- Production (Live): <https://payflowpro.verisign.com/transaction>
- Pilot (Test): <https://pilot-payflowpro.verisign.com/transaction>

**NOTE:** You must include /transaction as part of the URL; otherwise, you'll receive a result code 1, User Authentication error. This requirement will be removed in the future.

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### HTTPS headers

#### Standard HTTPS headers

HTTPS Header	Description	Req?
Connect	State of the connection. The server returns the value <code>close</code> to close the connection after the response is sent.	No
Content-Length	Size of message body.	Yes
Content-Type	Provide one of the following values: <ul style="list-style-type: none"><li>• <code>text/namevalue</code>: transaction request body is in NVP format.</li><li>• <code>text/xml</code>: transaction request body is in XMLPay 2.0 format.</li></ul>	Yes
Host	Provide one of the two host URLs: <ul style="list-style-type: none"><li>• Production: <code>payflowpro.verisign.com</code></li><li>• Pilot: <code>pilot-payflowpro.verisign.com</code></li></ul>	Yes

## PayPal protocol headers

Protocol Header	Description	Req?
X-VPS-REQUEST-ID	<p>A unique identifier for each request, whether the request is a single NVP transaction or an XMLPay 2.0 document with multiple transactions.</p> <p>This identifier is associated with all the transactions in a particular request. You must provide the X-VPS-REQUEST-ID value in the transaction request.</p> <p>The Payflow server uses the X-VPS-REQUEST-ID to check for duplicate transaction requests. When a transaction request is received, the server checks to see if the X-VPS-REQUEST-ID has been used before by this merchant.</p> <ul style="list-style-type: none"> <li>• If the X-VPS-REQUEST-ID has been used before, the server views it as a retry transaction, and the transaction is treated as a duplicate. The response to the original transaction is returned to the merchant, but a name-value pair of DUPLICATE=1 is added to indicate that this transaction is a duplicate.</li> <li>• If the X-VPS-REQUEST-ID has not been used before, the server stores the X-VPS-REQUEST-ID to ensure that the X-VPS-REQUEST-ID is not reused and then runs the associated transactions.</li> </ul> <p>Duplicate checking is designed for short-term retries (a few minutes to a few hours after the original transaction). Although the X-VPS-REQUEST-ID is stored for a minimum of 30 days, it is not recommended that you send a retry so long after the original transaction.</p> <p>Data type: 1 to 32 printable characters</p>	Yes
X-VPS-CLIENT-TIMEOUT	<p>Time-out value in seconds. A transaction times out if the elapsed time between ending the original transaction request and receiving the transaction response exceeds the value of X-VPS-CLIENT-TIMEOUT.</p> <p>The recommended value is 45.</p>	Yes
X-VPS-VIT-CLIENT-CERTIFICATION-ID	<p>A random globally unique identifier (GUID) that is currently required. This requirement will be removed in the future. At this time, you can send any alpha-numeric ID up to 32 characters in length.</p> <p><b>NOTE:</b> Once you have created this ID, do not change it. Use the same ID for every transaction.</p>	Yes

## Integrator-provided headers

These headers are extensions to the Payflow HTTPS interface. The extension parameters describe the version of the application and the application's environment.

**NOTE:** Even though these parameters are not required, it is strongly recommended that you send them.

Parameter	Description	Req?
X-VPS-VIT-INTEGRATION-PRODUCT	Identifies the product that is integrated with the Payflow server. Data type: string Examples: iPayment, ColdFusion, MIVA, shopping cart Default: blank	No
X-VPS-VIT-INTEGRATION-VERSION	Version of the software as defined by the integrator or vendor. Limited to the major version and one digit of the minor version. Data type: alphanumeric string in the format: <Major Version>.<Minor Version> Examples: 1.1, 4.5, 10.0, Linux2.1 Default: blank	No
X-VPS-VIT-OS-NAME	Name of operating system that the application is running on. Data type: string Examples: Linux, SunOS, Windows 2000, Windows NT, Windows XP, Mac OS X, Free BSD. Default: blank	No
X-VPS-VIT-OS-VERSION	Version of operating system that application is running on. Data type: string in the format XXX.X Example: 2.4 Default: blank	No
X-VPS-VIT-RUNTIME-VERSION	Version of runtime environment of the language that the application is running on. Data type: string in the format XXX.X Examples: 10.1, 2.5 Default: blank	No

## Transaction message

The transaction message communicates the initial transaction data to the server. It is made up of the transaction request and response.

**NOTE:** The examples below are in NVP format. XMLPay uses the same format as NVP except that the `content-type` is `text/xml` and the body of both the request and response contain the XML document.

## Transaction request

The transaction request consists of a transaction request header and body.

### Transaction request header

The following is an example of a transaction request header associated with a message in NVP format:

```
Connect: close
Content-Length: ...
Content-Type: text/namevalue
Host: payflowpro.verisign.com
X-VPS-REQUEST-ID: 9a5534f7e4f3a5e5138b062e000b279a
X-VPS-CLIENT-TIMEOUT: 45
X-VPS-VIT-CLIENT-CERTIFICATION-ID: 33baf5893fc2123d8b191d2d011b7fdc
X-VPS-VIT-Integration-Product: MyApplication
X-VPS-VIT-Integration-Version: 0.01
```

### Transaction request body

The transaction request body contains the transaction information. The following is an example of a transaction request body in NVP format:

```
TRXTYPE[1]=S&ACCT[16]=5105105105105100&EXPDATE[4]=0109&
TENDER[1]=C&INVNUM[8]=INV12345&AMT[5]=25.12&PONUM[7]=PO12345&
STREET[23]=123 Main St.&ZIP[5]=12345&USER[6]=jsmith&
VENDOR[6]=jsmith&PARTNER[8]=PayPal&PWD[8]=testing1
```

The bracketed numbers are length tags that allow you to use the special characters `&` and `=` in the value sent. See the *Website Payments Pro Developer's Guide* for more information.

## Transaction response

The transaction response consists of a transaction response header and body.

### Transaction response header

The following is an example of a transaction response header associated with a message in NVP format:

```
Connect: close
Server: VPS-3.033.00
X-VPS-REQUEST-ID: 9a5534f7e4f3a5e5138b062e000b279a
X-VPS-RESPONSE-ID:
V7sMZIeBBmrPMwNM7sZkPi3bLsaJ/QusF0LoEroT8/QD9d/AwUQbFYbKnhDOQ4HXRJ
Date: Mon, 16 May 2005 22:48:06 GMT
Content-Type: text/namevalue
Content-Length: 145
```

X-VPS-REQUEST-ID is the same ID sent in the transaction request.

**NOTE:** Ignore the X-VPS-RESPONSE-ID. It will be removed at a later time.

### Transaction response body

The transaction response body contains the response to the request. The following is an example response body in NVP format:

```
RESULT=0&PNREF=V53A0A30B542&RESPMSG=Approved&AUTHCODE=882PNI&  
AVSADDR=X&AVSZIP=X&IAVS=X&PREFPSMSG=No Rules Triggered&  
POSTFPSMSG=No Rules Triggered
```

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## Common problems

Problem	Description
Result code 1	User authentication error. Can be caused by: <ul style="list-style-type: none"><li>• Invalid login information or IP restrictions on the account. Verify that there are no IP restrictions in PayPal Manager.</li><li>• Verify USER, VENDOR, PARTNER, and PASSWORD. Remember that USER and VENDOR are both the merchant login ID unless a Payflow Pro USER was created. All field values are case-sensitive.</li><li>• Not appending /transaction to the host URL. This requirement will be removed in the future.</li></ul>
Result code 26	Verify USER, VENDOR, PARTNER, and PASSWORD. Remember that USER and VENDOR are both the merchant login ID unless a Payflow Pro USER was created. All field values are case-sensitive.
No response received	Usually caused by posting to an incorrect host URL.

